From: <u>Hanady Kader</u>

To: R10 Press Team; Marianne Holsman; Bill Dunbar; Richard Parkin; Sheila Eckman; Cara Steiner-Riley; Palmer

Hough; Kate Kelly; Jeff Philip; Dianne Soderlund; Tami Fordham; Phil North; Alisha Johnson; Jeff Frithsen;

Kathleen Deener; Dennis McLerran; Bob Sussman

Subject: Bristol Bay peer review stories--text in email

Date: 08/09/2012 04:25 PM

International Business Times: Between a rock and the EPA: A fight over Alaskan minerals is making big splash in Washington

Wednesday, August 8, 2012 6:35 AM EDT

Between A Rock And The EPA: A Fight Over Alaskan Minerals Is Making A Big Splash In Washington

By Oliver Tree

Deep in the Alaskan wilderness, a battle is being fought between mining companies and environmentalists that could affect tens of thousands of planning applications across the U.S.

According to British mining giant Anglo American PLC (LON: AAL) and its partner, Canada's Northern Dynasty Minerals (NYSEANEX: NAK), the Pebble Mine prospect -- located near the headwaters of Bristol Bay in the southwestern part of the state -- is thought to hold about 80 billion pounds of copper, 5.6 billion pounds of molybdenum and 107 million ounces of gold.

It is a massive prospect. The rough value of the mineral deposits could top \$500 billion, according to several estimates, and both companies have already spent roughly \$500 million over the last five years on pre-licensing assessments and environmental analysis, with plans to start digging by 2016.

But sadly for Anglo and Northern, the Pebble Project could be buried before ground has even been broken.

The immediate issue is a fish: Bristol Bay is home to the largest sockeye salmon fishery in the world, and some locals are terrified the mine will pollute the area's streams and ruin the \$480 million-a-year fishing business.

Local activists have compared the potential impact of the mine's effluent to BP's Gulf of Mexico disaster and the Exxon Valdez oil spill off Alaska, saying the region's fish stocks will become unsellable if the project goes ahead.

After protests and petitions, the fight has gone all the way to the top, with the Environmental Protection Agency set to announce a final decision on the project within weeks.

But the real fight here isn't over the salmon; it's over how much power the EPA really has. Specifically, it is a fight over whether or not the agency can scotch a project before plans for that project have been formally submitted.

While the agency has not said when it will release its final assessment, environmental groups who pressed for the study are hoping the agency will finalize its report and invoke what's known as a Section 404(c) veto as quickly as possible.

They want this to happen, however, *before* Pebble's prospectors have submitted a single plan for the project.

"Even without a catastrophic dam failure," Lindsey Bloom, an organizer with opposition group Trout Unlimited told Fox News, "there would be cumulative effects over time that would have an adverse effect on fish and other animals in the region."

The EPA, whose job it is to assess the impact of major projects like Pebble, released a draft assessment of the project in May. In its summary, the EPA noted that the Pebble mine could "affect the Bristol Bay watershed's fish and would consequently have impacts on wildlife and human welfare."

The unfavorable report goes on to mention a litany of potential environmental hazards which, according to activists who spoke with Fox News, essentially buried the project.

Under the Clean Water Act, the EPA may issue a permit, which is known as a 404, allowing companies the right to discharge certain amounts of effluent into the water table. The EPA also has the ability, under rule 404(c), to veto a project it deems will violate the act.

The battle for the mine has entered its final stages, with the EPA's peer review panel meeting publicly this week in Anchorage, then privately on Thursday.

In its report, the EPA states: "This is not an in-depth assessment of a specific mine, but rather an examination of the impacts of mining activities at the scale and with the characteristics realistically foreseeable in the Bristol Bay region."

"Details of a mining plan for the Pebble deposit or for other deposits in the watershed may differ from our mine scenario; however, our scenario reflects the general characteristics of mineral deposits in the watershed."

A pre-emptive strike against the Pebble Project by the EPA could have wide-ranging ramifications, industry groups say, and Washington is starting to sit up and take notice. For example, the Army Corps of Engineers issues roughly 60,000 404(s) discharge permits annually, giving the environmental go-ahead for everything from mines to shopping malls.

On Monday, House Subcommittee on Investigations and Oversight Chairman Rep. Paul Broun, R-Ga., asked EPA Administrator Lisa Jackson for a personal briefing on the agency's draft study.

"As chairman of the Investigations and Oversight Subcommittee, I take my oversight responsibilities very seriously, especially when it involves scientific studies and assessments by federal agencies within the committee's jurisdiction -- such as the EPA," Broun said in the request letter. "I've asked Administrator Jackson to schedule this briefing by the end of the month, and I look forward to her timely response to my request."

Arguing on behalf of Canada's Northern Dynasty, regulatory lawyer Thomas Collier hinted that the EPA may also be blurring the line between scientific mandate and political maneuvering.

"I see no policy reasons or scientific basis for beginning this study without an important prerequisite -- a mine plan -- and for rushing it to conclusion," Collier said, according to Equities.com. "I do see, however, a possible political explanation. Could EPA be rushing to complete an assessment that could be used as a basis for a 404(c) veto of Pebble in the event President Obama is not re-elected and a new administration takes office?"

Industry groups are also ramping up opposition to the EPA's decision to press ahead with the assessment even before Anglo American and Northern Dynasty submit a formal proposal.

"From a consumer perspective, there's always a concern the EPA will abuse its regulatory reach and take what should otherwise be a local issue back to Washington D.C.," said David Holt, president of the Consumer Energy Alliance.

"This use of the veto potentially takes billions of barrels of oil and trillions of cubic feet of natural gas out of production at a time when the U.S. needs it most," he said. "404 is just another example of potential regulatory reach by the government. They've made a preliminary report and speculated at the potential impact of Pebble mine without a plan from the miners themselves."

And if previous experience is anything to go by, Holt's concerns are well founded.

Last year, consulting firm the Brattle Group investigated the wider economic impacts of the EPA's use of section 404(c) after the agency used it to withdraw a permit from mining firm Arch Coal three years after granting it a discharge permit.

In 2007, the Army Corps of Engineers issued a Section 404 discharge permit to Arch Coal for its Spruce No. 1 Mine in West Virginia. But after operating within their 404 guidelines for three years, in January 2011 the EPA decided to revoke it.

According to Prof. David Sunding of the University of California-Berkeley, the Brattle report's author, the EPA's "after-the-fact" veto of Arch Coal's 404 license, "Alters the incentives to invest in projects requiring a permit under Section 404."

"The EPA's action has a chilling effect on investment in activities requiring a 404 authorization across a broad range of markets. The possibility of permit revocation has highly pernicious effects on investment. Investment, in some cases, is not only delayed, but entirely deterred."

Alaska Dispatch: Tag team of scientists scrutinizes EPA's Bristol Bay watershed assessment

Tag team of scientists scrutinizes EPA's Bristol Bay watershed assessment Jill Burke | Aug 08, 2012

A 12-member panel of scientists assembled to scrutinize the <u>U.S. Environmental Protection Agency's</u> recent study about the possible effects of mining to fish and waterways in the world's most prolific wild salmon fishing grounds wants to send the EPA back to the drawing board. The independent group is charged with analyzing 14 portions of the study of the proposed <u>Pebble Mine</u> in southwest Alaska. And on Wednesday, as it deliberated during a public forum at a convention center in downtown Anchorage, many panelists said the agency's inquiry should be more comprehensive.

Who was on the panel? Water flow experts, geologists, fish biologists, anthropologists, watershed scientists, wetland ecologists, environmental toxicologists, a civil engineer who is also an expert on sustainable mining practices, and a wildlife ecologist. These researchers, consultants and academics were selected to sit on the scientific peer review panel as a component of the EPA's public process, finalizing its Bristol Bay watershed study.

The panel is evaluating several questions:

• Did the study adequately capture what might happen under certain scenarios?

- Did it correctly determine how mining activities will affect streams, fish and people?
- What can be done to counteract the environmental impact of mining?
- Was the hypothetical mine created by the EPA for this evaluation realistic?

"It is neither realistic nor sufficient," Dirk Van Zyle, professor of mining and the environment at the University of British Columbia, said of the scenario. "My biggest concern is the idea of using good practice instead of best practice. To me, that is not the way any mine in this scenario will be developed."

Commercial fishing's impact

Paul Whitney, a wildlife ecologist and private consultant, said a balanced report needs to include the impacts of commercial fishing on stream productivity, too. He questioned whether commercial fishing depletes the river environment by keeping marine nutrients -- returning fish -- from coming back. This would be a component in analyzing the total effect of a mine on the watershed, he said.

His suggestion took a more pointed turn when he further questioned whether reducing commercial fishing catches might be a way to counteract fish habitat depleted by mining. In some projects, mines are required to rehabilitate a substitute habitat to replace what it alters. But in Bristol Bay, where everything is pristine and largely untouched, is this even possible?

One commercial fisherman in the audience, didn't appreciate Whitney's musings. Sure, the concept of reducing catch so another resource can be exploited isn't new. Alaska fisherman often limit their catch of one kind of fish to conserve it or allow the take of another. But in the context of a mine, the method would be used to compensate for the destruction of habitat instead of managing fish allocation. Chip Treinen fishes for sockeye salmon in Bristol Bay and serves as chairman of the environment committee of <u>United Fisherman of Alaska</u>, a group of Alaska commercial fishing interests. "That doesn't sound like a very good idea to anyone who uses those fish," he said. "Taking extra fish or trying to increase the number of fish in one area to compensate for what's lost in another area doesn't work very well."

The EPA study, published in draft form in May, found that any mining is likely to have an impact. Up to 87 miles of fish spawning or rearing habitats -- and as many as 4,200 acres of wetlands -- could be lost in Bristol Bay. Changes in water flow could affect streams' productivity, resulting in less in-river food for fish. Shifts in water temperature could also affect the size, timing and health of hatching fish. And if a dam gave way, the impacts could be severe. Tailings and slurry flooding into a nearby stream could wipe out fish, the study

Millions of salmon

Because copper and mineral deposits are located in a watershed of the Bristol Bay region that accounts for 50 percent of the area's salmon population, hazards are being closely scrutinized.

Bristol Bay, located in the southwest corner of Alaska,, is a rich place for fish, birds and animals. It is a world- class commercial and sport fishery for salmon, trout and other species of fish. Freshwater rivers that drain into local bays support nearly half of the world's wild sockeye salmon population. This abundant fish returns annually by the tens of millions each summer.

The EPA found that Bristol Bay's productivity is partly due to it being untouched by development and infrastructure, while supporting a diverse ecosystem that thrives on a web of close interconnections between water and land. What's good for fish tends to be good for brown bears, bald eagles, gray wolves, moose, caribou and birds in the area.

Indigenous cultures of the region have lived off the land there for more than 4,000 years. More than half of their diet comes from fish. All together, subsistence harvests can account for up to 80 percent of the protein families eat in a year.

The Bristol Bay watershed's abundant wildlife and fish support not only commercial fishing, but sport fishing, hunting and other recreation-based tourism, bringing in \$480 million and creating 14,000 jobs each year.

The region is also rich with copper and gold deposits. If the Pebble deposit were fully mined, the EPA found that it would produce more than 11 billion metric tons of ore, making it, without question, the largest mine of its type in North America.

Craving specificity

Most panelists noted that if the study remained narrowly focused on salmon impacts instead of impacts to the overall watershed. Consequently, it should state in plain language its limited parameters and the reasons behind it.

The group craved more specificity. More details, the scientists said, would yield a better analysis. A real mine proposal with real scale and a real footprint would have helped, many said.

But even sticking with the hypothetical scenario, the group wanted to know more.

- Could scenarios other than the best case and worst case be considered?
- Could the impact of salmon health to the overall watershed, including to wildlife and humans, be explored more fully?
- Why not also consider collateral impacts beyond the construction and operation of a mine. How about the noise it emits? Or the impact of water use for treatment at the plant, or to tamp down dusty roads?

On the other side, the potential benefits of mining -- bringing roads and power generation and jobs to the area – could have been better documented, too.

Yet for all of the criticism, the group also complimented the work of the EPA in its nearly year-long inquiry. They seemed to view it as a good start while emphasizing the need to make it more comprehensive. Still, many panelist felt were uneasy dealing with so many unknowns.

"It is unsatisfactory because we want more detail. We want to know what the right answer is," said William Stubblefield, a senior research professor in the Department of Molecular and Environmental Toxicology at Oregon State University. "I think that they (the EPA researchers) have attempted to recognize the uncertainties associated with the assumptions that were laid out. It's unsatisfying, but it is where we are."

Critical eye

The comment brought the group back to its core mission. They were asked to find the weaknesses in the report, and they brought a critical eye to the task.

One purpose of the EPA study was to collect information that will help the agency determine whether to use its authority under the Clean Water Act to preemptively veto or restrict mining at the Pebble site, said panelist John Stednick, a professor and program leader of the Watershed Science Program in the Department of Forest and Rangeland Stewardship at Colorado Sate University.

In that spirit, the 12-member panel of scientists also acknowledged that they are a part of a longer process. This fall, their evaluations will be forwarded to the EPA, which has not committed to any timelines or regulatory actions.

At the close of the day panelist Dirk Van Zyle may have summed it up best: "This shouldn't be an end all. This is a starting point."

Contact Jill Burke at <u>jill(at)alaskadispatch.</u>

Alaska Dispatch: EPA in Alaska's Bristol Bay: Questions and Answers

EPA in Alaska's Bristol Bay: Questions and Answers

Eric Christopher Adams | Aug 08, 2012

Engineers, biologists, nonprofits, policymakers and a gaggle of media have descended on downtown Anchorage to discuss the controversial <u>draft Bristol Bay watershed assessment</u>. On Wednesday, independent scientists tasked with reviewing the EPA assessment debated <u>14 specific questions</u> about the impact of mining on the region.

Stay tuned: Alaska Dispatch will have a full story on the scientific debate. Meantime, here are a few questions and answers to better understand why the EPA is here reviewing the mine before any project has been proposed, and some other interesting points to consider:

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Q: Why is the Environmental Protection Agency studying Bristol Bay's watershed and what, if any, impact large-scale mining might have to salmon habitat?

A: In May 2010, at least nine Alaska tribal groups and one Alaska Native regional corporation <u>petitioned the EPA</u> to assess whether a large-scale mining project in Southwest Alaska's Bristol Bay watershed would adversely impact fish, wildlife, water quality or Alaska Native culture. *Source:* <u>Dennis McLerran</u>, the <u>EPA Region 10</u> administrator for Alaska, Idaho, Oregon, Washington and 271 Native tribes.

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Q: What was the aim of the petition?

A: The petitioners asked the EPA to use its regulatory authority under Section 404(c) of the U.S. Clean Water Act to veto the proposed Pebble Mine prospect -- thought to be the among the world's largest undeveloped deposits of gold, copper and molybdenum. *Source: McLerran*

Section 404(c) authorizes EPA to "restrict, prohibit, deny or withdraw the use of an area as a disposal site for dredged or fill material if the discharge will have unacceptable adverse impacts on municipal water supplies, shellfish beds and fishery areas, wildlife or recreational areas."

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Q: How long has Bristol Bay watershed been studied, and by whom, since the EPA became involved?

A: Eighteen months. The assessment involves scientists from the EPA, the state of Alaska, the U.S. Army Corps of Engineers and others. *Source: McLerran*

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Q: How long has the Pebble Limited Partnership (Anglo American Plc and Northern Dynasty Minerals) been studying the deposit's environment?

A: Eight years of studying the Bristol Bay watershed surrounding the deposit, work that the companies say cost about \$200 million. *Source: John Shively, Pebble Limited Partnership CEO*

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Q: Does the EPA assessment incorporate the years of data analysis and compilation already undertaken by Pebble? Why or why not?

A: No. Pebble submitted thousands of pages of data on Bristol Bay's watershed and salmon habitat. It's standard practice for scientists to seek independently-verified analysis of data. EPA welcomed any information that would help in its analysis of the watershed; however, the Pebble data was offered in an unacceptable form. *Source: McLerran*

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Q: How biologically diverse is the Bristol Bay watershed?

A: Bristol Bay watershed provides habitat for numerous animal species:

- More than 190 bird species, including nearly a half-million ducks, 7,700 geese, 15,400 swans and 5,300 sandhill cranes.
- More than 40 species of terrestrial animals, including caribou, moose and brown bear.
- More than 35 species of fish, including rainbow trout, Arctic grayling, Dolly Varden char, Chinook salmon, sockeye salmon, coho salmon, chum salmon and pinks. Source: <u>EPA Draft Bristol Bay Assessment</u>

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Q: Pebble hasn't submitted a mine development proposal. How did the EPA assess a mine that hasn't yet been developed?

A: EPA developed a hypothetical mine scenario, based on mining of the Pebble deposit and data provided by Northern Dynasty Minerals (co-owner of the Pebble deposit), among other mining firms. The mine draws on plans published by Pebble Limited Partnership and ... reflects general characteristics of Bristol Bay watershed mineral deposits, contemporary mining technologies and some theoretical infrastructure development that such a large project might require. Source: EPA Draft Bristol Bay Assessment Executive Summary

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Q: How much gold and copper is the Pebble deposit believed to hold?

A: Pebble engineers believe there's at least 100 million recoverable ounces of gold and 80 billion pounds of recoverable copper beneath a mile-and-a-half-wide swath of swampy tundra, some 20 miles from Lake Iliamna, the largest lake in Alaska and eighth-largest lake in North America. *Source: Jane Whitsett, Pebble environmental studies manager* (2011 interview)

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Q: What type of infrastructure might a future Pebble Mine require?

A: Because the region is off Alaska's road system, significant investment in infrastructure projects would be required. Here are a few of the projects expected:

A deepwater port to service the mine;

- An 80-mile road connecting that port to the Pebble deposit;
- Four pipelines running along the road;
- Ore processing facilities;
- A power plant big enough to "electrify Anchorage";
- Arrangements for a 3,286-acre waste rock pile. Millions of tons of waste rock will be produced;
- Arrangements for a 3,686-acre tailings impoundment behind a 685-foot-high earthen dam.

Sources:

Jane Whitsett, Pebble environmental studies manager (2011 interview) EPA Draft Bristol Bay Assessment Executive Summary

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Q: *Is the EPA's Bristol Bay watershed assessment complete?*

A: No. EPA hopes to complete the assessment by the end of the year. *Source: McLarren*

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Q: Will any regulatory recommendations or actions result from the assessment?

A: EPA says it's too early to comment on what their recommendation or action will be with data still being gathered. *Source: McLarren*

Contact Eric Christopher Adams at eric(at)alaskadispatch.com

Greenwire: Scientists question EPA watershed study

Scientists question EPA watershed study

Manuel Quinones, E&E reporter

Published: Thursday, August 9, 2012

A group of scientists tasked with reviewing U.S. EPA's report on large-scale mining in southwest Alaska expressed concerns about the agency's work during a daylong meeting yesterday.

EPA's watershed assessment comes in response to plans for Pebble LP's potential gold and copper mine in the Bristol Bay region, which could become one of the world's largest. Several of the scientists suggested that the agency's report may need revisions to portray the true impacts of a major mine.

"There's been little attention in the assessment to mitigation," said University of Idaho hydrology researcher Charles Slaughter. "In this landscape, restoration takes a long time."

EPA's study outlined scenarios regarding the likelihood of accidents or disasters at a large-scale mine, including the possibility of no failures. "I don't see that 'no failures' is realistic," Slaughter said.

The scientists, who have varying areas of expertise, echoed some of the concerns of fishermen and environmentalists about fish habitats and the long-term management of mine waste.

"I would want all of us to think hard about that particular issue," said Roy Stein, an Ohio State University fisheries and aquatic biology researcher who is also chairing the scientific peer-review panel.

Stein seemed to acknowledge the unease of some EPA critics who say the process is being rushed. "We feel your pain," he said. "The idea of time constraints we understand, and we worked hard to meet those time constraints."

Scientists also questioned EPA's use of a hypothetical mine to develop its assessment. Despite years and millions of dollars of research, Pebble has yet to finalize its mine plan.

"As given, this scenario is neither realistic nor sufficient," said Dirk van Zyl, a University of British Columbia mining expert.

"I don't see any regulatory agency having the appetite to permit a 78-year-life mine," he added. "I don't think a financial institution having the appetite to fund a 78-year-life mine."

The dozen scientists are deliberating behind closed doors today after expressing their preliminary concerns and comments yesterday. On Tuesday, they heard from the public and advocates on both sides of the fight.

Pebble and its backers, including Northern Dynasty Minerals Ltd., blasted EPA's study as inadequate and called it a political effort to block the mine, especially in case President

Obama loses his bid for re-election (*Greenwire*, Aug. 7).

Opponents of the mine and supporters of EPA's study, including Trout Unlimited and fishermen's groups, touted scientists on their side of the battle.

"I would again like to commend the EPA for their thorough effort to review all existing, rigorous information available to generate an extremely conservative estimate of risks to fisheries habitat from mining," said salmon ecologist Sarah O'Neal.

"The work regarding the global significance of the Nushagak king salmon is crucial and timely because it documents that as one of the largest king salmon runs in the world," O'Neal added.

The peer reviewers will present a report in the coming weeks that will outline their recommendations for improving EPA's watershed assessment. The agency hopes to have a final draft by the end of the year.

ABC Alaska: Review panels hears testimony on EPA's mining assessment, suggests improvements

by Megan Mazurek

Story Created: Aug 8, 2012 at 5:03 PM AKDT

A review panel hears testimony Tuesday (8/7) on the Environmental Protection Agency's recent assessment of the potential mining impacts in Bristol Bay. Released earlier this year, the EPA's assessment found that even without failures in a long term mining project, like Pebble Mine, there would likely be negative impacts on fish due to blocked streams, removal of wet lands and changes in hydrology.

The panel of twelve was publicly nominated and picked through independent research. They are experts ranging from hydrology, seismology, engineering and have years of experience in the mining field.

Concerned citizens and others invested in the project were able to give testimony on potential effects to Alaska native culture, potential failures, mine scenarios and any other concerns they felt would be beneficial for the panel to hear.

The speakers on the highly controversial topic followed suite of what's been echoed in previous public testimony; some supported the project and others were against it.

Supporters felt the mine would be the type of economic boost the area needs but fears the federal government is trying to stop development; a common theme, critics say, can be found throughout the state. A number of residents in Bristol Bay said the development would halt their subsistence living and cause harm to the future generations.

One speaker thought the assessment was unrealistic and didn't think the EPA was being objective or thorough enough as they failed to utilize an impact statement done in 2005 by the Borough of Land Management in it's assessment.

"I think as reviewers you have to ask how and why would scientists with the EPA ignore a recently implemented three year public process," said Gregory Beischer, CEO of Millrock Resources. "I conclude the EPA is not object and they're not being thorough in their work."

Wednesday the panel answered 14 charge questions on the draft assessment while taking testimony into consideration.

Panels members suggested the assessment expand the portion of identifying potential uncertainties and address past possible impacts. The critiques of the assessment will be used to possibly build a better design of the mine or approach to developing the area.

Thursday (8/9) the meeting will be closed to the public to allow peer reviewers to prepare for their final comments. The reviews will be submitted to EPA's contractor, Vesar. Later this fall, Vesar will release its report of the peer review to the public.

AP: Congressman raises concerns about EPA study on mining impacts in Alaska's Bristol Bay region

- THE ASSOCIATED PRESS
- August 08, 2012 12:50 pm EDT

JUNEAU, Alaska — A U.S. House subcommittee chairman has concerns with a federal study of the potential effects of mining in the Bristol Bay region.

U.S. Rep. Paul Broun of Georgia says if the Environmental Protection Agency uses the study to preemptively veto mining permits, the assessment's scientific credibility "will need to be beyond reproach."

He says that's not the case now, noting, among other things, questions that have been raised by Alaska's attorney general about EPA's process and the potential for EPA to reach "unreliable conclusions."

Broun, who chairs a House science subcommittee on investigations and oversight, made his comments in a letter to EPA Administrator Lisa Jackson.

EPA plans to use recommendations from an independent scientific panel to help determine if there are areas of concern or that need additional analysis.

(Story distributed by The Associated Press)

Alaska Native News: External panel convenes to discuss EPA draft assessment

By GW Rastopsoff | Alaska Native News 08/08/2012 06:09:00

Three days of meetings began when a panel selected by EPA contractor Versar convened to evaluate the EPA findings on Bristol Bay on Tuesday.

The twelve scientists chosen for the evaluation will review and discuss the scientific and technical aspects of the EPA Bristol Bay Watershed Assessment.

The public comment period for the Draft Bristol Bay Watershed Assessment closed to public comment on July 23rd.

The public was also able to register to make public comment on the first day during this external panel discussion that is focussing on the science relevant to the assessment. The first two days of the discussion are open to the public. The third day of the panel's meeting will take place in private.

As the EPA prepares its final assessment, it will take into consideration Versar's report of the

comments and recommendations from the external peer review meeting.

There are anumber of items that the external panel is charged with considering by the EPA during this panel discussion.

First, the EPA would like to know if the charactorization of the ecological, geological, and cultural resources of the Nushagak and Kvichak watersheds was accurate and/or appropriate and if there is any data, reports and literature missing that would be useful to complete the charactorization.

The EPA would also like to know if the hypothetical mine scenario used in the draft assessment was realistic and sufficient for the assessment.

Also the panel is charged with finding if the no-failure mode of operation for mining operation in the region was described adequately, and if the potential risks to salmonid fish due to habitat loss and changes in hydrology and water quality in a no-failure scenario was appropriately characterized.

The EPA also wants the panel to review if the estimates of potential system failures described in the EPAs asssessment represent potetial failures that could occur in a mine of this type, and if there are any further failure scenarios not mentioned in the assessment. The EPA has also asked the panel to discuss if the assessment appropriately characterizes the risks to salmonid due to leachate and water treatment, culvert failure, pipeline and dam failure, and asks the panel for reports and data that hasn't been referenced for the assessment.

Because the Pebble Limited Partnership hasn't submitted a development plan, the assessment by the EPA isn't specific to the proposed Pebble mine.

Pebble mine and its supporters say that the assessment was rushed and flawed. It was pointed out on the first day of the discussion by the chief executive of the Pebble Partnership John Shively, that the hypothetical mine used in the study wouldn't have been allowed under current mining rules. He said, "The fantasy mine that EPA uses to measure the potential impacts on this very large watershed has no basis in reality in the 21st century."

EPAs Area Region 10 administrator Dennis McLerran countered saying that the EPA relied

on documents filed by one of Pebble's partners.

While the native community in the region is split in their opinion of the mine. 90 to 95% of the roughly 200,000 people who submitted written comments to the EPA support the EPA study.

If you would like to watch the live broadcast of day two, go to this link.: August 8 link: Peer Review Meeting Day 2 Webcast: Wednesday, August 8 Day two discussion commences at 8 am.

KTVA Alaska: EPA Bristol Bay report being reviewed

EPA Bristol Bay Report Being Reviewed The Bristol Bay Watershed is also full of mineral deposits, tempting mining companies to exploit it By Kate McPherson

Story Created: Aug 7, 2012 at 7:34 PM AKDT

Story Updated: Aug 8, 2012 at 9:57 AM AKDT

ANCHORAGE - It's the largest sockeye salmon fishery in the world. It supports thousands of people, as well as a way of life.

The Bristol Bay Watershed is also full of mineral deposits, tempting mining companies to exploit it.

In May, the Environmental Protection Agency (EPA) released a report on potential mining impacts on salmon ecosystems in the Bristol Bay region.

Twelve independent experts from across the country began an assessment of the EPA report on Tuesday.

As part of the assessment, a three-day meeting in Anchorage began Tuesday, which included a period for public comment.

More than 100 people were invited to address the reviewers and voice their opinion on the EPA's report.

Herman Nelson traveled hundreds of miles, from Koliganek on the Nushagak River, to speak to the reviewers Tuesday.

He told them he doesn't want to lose ability to live off the land.

"We're so lucky to have what we have, the renewable resource and the money that the fishing industry brings in," said Nelson.

Nelson welcomes the EPA's study, including predictions of how a mining failure could destroy salmon habitat.

"It's too dangerous, there's too much that could go wrong," he said.

Those who support mining in the area said the EPA study was rushed

The Pebble Partnership said the reviewers need to take into account the EPA study was based on a hypothetical mine scenario.

"The problem with their imaginary mine is that it could never be built today because it could not be permitted under existing state and federal law," said John Shively, CEO of Pebble Limited Partnership.

"And because it can't be permitted, they're showing impacts that could never take place," said Shively. "If you can't permit the mine it can't be built so those impacts can't happen."

NRDC: Science panels hears an earful on Pebble Mine

Tarvn Kiekow's Blog

Science Panel Hears an Earful on Pebble Mine

The Environmental Protection Agency (EPA) convened a panel of independent scientists in Anchorage, Alaska to review its draft <u>Bristol Bay Watershed Assessment</u>. The <u>three-day panel</u> is tasked with reviewing the science behind EPA's study, which found that large-scale mining -- like the proposed Pebble Mine -- at the headwaters of Bristol Bay could potentially <u>devastate</u> of one of the world's premier wild salmon fisheries.

The panel heard from over 90 speakers yesterday. Native Alaskans, scientists, hunters, conservationists, and concerned citizens united to <u>voice their support</u> for EPA and opposition to Pebble Mine. "I have no desire to disappear," said Anna May Ferguson on behalf of the Traditional Council of Togiak. "With Pebble Mine that is sure to happen."

Scientists at the hearing voiced concern, among other things, about the connective hydrology in the region, the economic and sociocultural dependence on salmon, and the certainty of mining failures.

And one of the more colorful speakers said he'd meet the Pebble Limited Partnership with his rifle at the edge of Lake Iliamna and "one of us will go down."

Many of the speakers -- like yours truly -- thanked EPA for issuing the draft Watershed Assessment.

Definitely *not* thanking EPA were the foreign mining companies behind Pebble Mine. The lawyers and consultants hired by mining giants Anglo American and Northern Dynasty Minerals paraded their standard <u>litany of complaints</u> (my rebuttal in parenthesis), including:

- Questioning EPA's authority (The Clean Water Act clearly authorizes EPA to conduct such assessments, and EPA has done so numerous times in the past);
- Arguing EPA ignored its science (Since EPA does cite the science bought and paid for by the Pebble Partnership, one suspects their real complaint is that EPA only sipped, not gulped, the kool-aid);
- Claiming no definitive mine plan exists (Northern Dynasty Minerals submitted mine plans to the State of Alaska in 2006 and to the Securities and Exchange Commission in 2011); and
- Touting the marvels of modern engineering (Are they really so arrogant to claim they can build and operate a perfect mine -- forever, even in an earthquake-prone area?);

You can scroll down to see my official testimony (and diplomatic rebuttal).

The panel – comprised of 12 independent scientists – heard testimony from the public yesterday and debated the scientific merits of the assessment in an open session today. It will meet tomorrow in a closed session to generate a series of recommendations to EPA.

EPA's study (and intervention) is critically important. If left to its own devices, the State of Alaska has never said no to a large mine -- which is why native tribes, Alaska residents, commercial fishermen and conservationists are calling on EPA to veto Pebble Mine under Section 404(c) of the Clean Water Act.

<u>Click here</u> to make your voice heard and to Stop Pebble Mine.

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Hanady Aisha Kader Public Affairs Specialist U.S. Environmental Protection Agency, Region 10 206.553.0454 (desk) 206.225.8127 (cell) kader.hanady@epa.gov